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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,409

10/01/2003

Thomas M. Fudali

66396-072

5122

7590 03/29/2011  
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EXAMINER

BODDIE, WILLIAM

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

03/29/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,409	<b>Applicant(s)</b> FUDALI ET AL.	
	<b>Examiner</b> WILLIAM L. BODDIE	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 10-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. In an amendment dated, February 24<sup>th</sup>, 2011, the Applicants traversed the rejection of claims 1-9 and amended claim 1. Currently claims 1-9 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 24th, 2011 has been entered.

#### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added claim language requires that the touch sensitive active region (TSAR hereinafter) is "defined responsive to a pressure applied to the display screen by the user contact with the display element." Such language requires that the TSAR is variable based on the amount or type of pressure applied. This interpretation is further supported by Applicants' statements in the Remarks, which state that "as the user presses the display harder" the size of the TSAR is increased at the bottom of page 7.

Applicants argue that the claim language is supported by paragraph 21 of the specification. The most on-point discussion in paragraph 21 reads, "the pressure can be used to define further the contact area or point." There is no discussion of increasing or decreasing the size the size of a TSAR in such phrasing. All that is disclosed is the use of pressure data to "define further the contact area or point." Furthermore a touch sensitive active region is seen as being different from simply a "contact area or point." The contact area is the area that the user touches on the device. A TSAR is a GUI defined area within which a touch must occur for an icon to be considered selected by the user as described in Applicants' paragraph 48. Therefore discussion of further defining the contact area or point is seen as being fundamentally different from further defining the touch sensitive active region.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849) and further in view of Barker (US 6,314,422) and Beaton et al. (US 6,310,610).

**With respect to claim 1**, Kawasaki discloses, a non-transitory computer-readable storage medium for storing instructions for invoking a function of an instrument (fig. 5), the code, once executed, causing the instrument to display:

a first navigational menu (12a in fig. 5) including at least one display element (51 in fig. 5), the at least one display element having a touch sensitive active region therein (box surrounding the graphic in 51 in fig. 5) and a graphical representation of functionality invoked via user selection of the display element by user contact with the touch sensitive active region (graphic and box in 51 in fig. 5), the display element and the touch sensitive active region being located on the same surface of a display screen of the diagnostic instrument (fig. 5 discloses a display element (graphic and box) which also contains a touch sensitive active region that are located on the same surface of the device; note col. 6, lines 12-16; "the user performs an input operation by touching with the finger or pen to these touch keys." From fig. 5, the display element (icon, 51) and the touch sensitive active region the (box, 51) are located on the same surface, as the user can select the icon with their finger from the figure 5 view); and

an instrument identity banner including details of the type (pioneer label in fig. 2) and status (volume is at step 18 in fig. 2) of the instrument.

Kawasaki does not expressly disclose, that the interface is for a diagnostic instrument, a second navigational menu or displaying the status of the instrument.

Szukala discloses a touch user interface (fig. 7a-b) for invoking a function of a diagnostic instrument (engine diagnostic), the user interface comprising:

- a first navigational menu (fig. 7a-b) including at least one display element (each menu selection, static info...); and

- a second navigational menu (fig. 11, for example) configured to be displayed responsive to contact on the touch sensitive active region of the at least one display element (Static Tests icon in fig. 7b), the second navigational menu including a selection group related to a test suite of the diagnostic instrument (fuel injector, ignition firing etc. in fig. 11); and

- an instrument identity banner including details of the type (each display has a title which identifies what the current instrument of the device being used is; "Engine reporting" in fig. 14b) and status ("working" in fig. 14b) of the diagnostic instrument.

Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of PDA touch user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the instrument of Kawasaki as a diagnostic tool and include a second navigational menu as taught by Szukala.

The motivation for doing so would have been the need for a portable engine diagnostic device (Szukala; col. 2, lines 15-17) as well as the well-known benefit of providing a main menu and submenus to help a user more quickly reach the function they desire.

Kawasaki and Szukala do not explicitly disclose an instrument identity banner including details of the type and status of the diagnostic instrument.

Barker discloses a user interface for a diagnostic instrument comprising, an instrument identity banner (top of 70 in fig. 6) including details of the type (TSBs/Recalls and/or 1996 Intrepid and/or the VIN and/or tech name in fig. 6) and status (Status: disconnected in fig. 6) of the diagnostic instrument (fig. 2, for example).

Barker, Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the type and status information in a banner on the interface of Kawasaki and Szukala as taught by Barker.

The motivation for doing so would have been the well-known advantage of providing the user quick “at-a-glance” basic information and providing quick easy location of the desired information (Barker, col. 6, lines 34-55).

Neither Kawasaki, Szukala nor Barker disclose, wherein the touch sensitive active region is pressure sensitive, and the touch sensitive active region is defined responsive to a pressure applied to the display screen by the user contact with the display element.

Beaton discloses, wherein the touch sensitive active region is pressure sensitive (col. 7, lines 3-19), and the touch sensitive active region is defined responsive to a pressure applied to the display screen by the user contact with the display element (col. 6, lines 40-43).

Beaton, Barker, Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the pressure sensitive device and define the active region as taught by Beaton in the device of Kawasaki for the benefit of an improved GUI (Beaton; col. 2, lines 11-14).

**With respect to claim 2**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki, when combined with Szukala, further discloses, wherein the selection group includes a plurality of display elements (Szukala; fuel injector, ignition firing etc in fig. 11), each of the plurality of display elements having a touch sensitive active region to enable user selection of the plurality of display elements (Szukala; col. 13, lines 1-9).

**With respect to claim 3**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki, when combined with Szukala, further discloses, wherein the selection group includes fewer than ten display elements to permit discrete touch sensitive selection of each of the fewer than ten display elements (Szukala; only 5 in fig. 11).

**With respect to claim 4**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the first navigational menu includes at least six display elements (nine in fig. 5), each of the at least six display elements having a



discrete touch sensitive active region sized to permit finger tip selection (note the size of the icons in fig. 2 and their relation to the user's finger tips).

**With respect to claims 7**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the touch sensitive active region comprises an area having a polygonal shape (rectangle) of at least 1/4 square inch (see finger sized relation to the icon size in fig. 2, icons in fig. 2 are even smaller than icons shown in fig. 11).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Banks et al. (US 6,603,494).

**With respect to claim 5**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose including a textual description of the functionality with the graphic.

Banks discloses, a diagnostic instrument, comprising a touch-based user interface, wherein at least one display element comprises

a textual description of functionality invoked by user selection of the display element (schedule, close, analyze, for example in fig. 5).

Banks, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely design of touch user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include textual descriptions alongside the graphics of Kawasaki, Szukala, and Barker.

The motivation for doing so would have been the well-known benefit of removing any question in the user's mind what the graphic represents.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Debrus et al. (US 5,598,527).

**With respect to claim 6**, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the touch sensitive active region comprises a circular area with a diameter of at least 3/8 inch (3/8 inch diameter is almost half the size of a dime; Kawasaki discloses a space at the very least that large as seen in fig. 2).

Kawasaki, Barker and Szukala do not expressly disclose wherein the touch sensitive active region comprises an approximately circular shape.

Debrus discloses, a touch sensitive device wherein a touch sensitive active region (13-20 in fig. 1) comprises an approximately circular shape (see fig. 1) with a diameter of at least 3/8 inch (col. 3, lines 27-30; 47 is approx. 6 inches long which equates to at least a diameter of at least 6/8 of an inch).

Debrus, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the display elements of Kawasaki, Barker and Szukala to permit finger tip selection as taught by Debrus.

The motivation for doing so would have been the well known benefit of allowing the user to more easily locate the icons.

The currently claimed differences in shape over Kawasaki and Szukala in view of Debrus are not seen as patentably distinct from the prior art. In short, whether the touch regions are polygons or circular is immaterial and insignificant. The device will not perform differently should the user interface use polygons or circular shapes for the touch regions. The Applicant is directed to section 2144.04.IV.A-B of the MPEP.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Ross et al. (US 5,859,628).

**With respect to claim 8**, Barker, Kawasaki, Ross, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose, wherein the touch sensitive active region comprises at least 1/10 of the screen area.

Ross discloses, a user interface (fig. 6d), and that the touch sensitive active region comprises at least 1/10 of the screen area (also clear from fig. 6d).

Ross, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the display elements of Kawasaki, Barker and Szukala to span the entire display area as taught by Ross.

The motivation for doing so would have been to allow the user to more easily recognize the icons and text of the screen (Ross; col. 7, lines 11-12; for example).

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Cross et al. (US 7,154,481).

**With respect to claim 9**, Barker, Kawasaki, Cross, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose, wherein the first and second navigational menus are displayed on a touch screen device sized and positioned so as to be responsive to a gloved finger.

Cross discloses a touch screen wherein the device is sized and positioned so as to be responsive to a gloved finger (col. 4, lines 47-49).

Cross, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to construct the touch screen of Kawasaki, Barker and Szukala in the manner of Cross to ensure that the device is responsive to a gloved finger.

The motivation for doing so would have been as a convenience and ease of use to the user to not have to remove any gloves in order to operate the machine (Cross; col. 1, lines 57-61).

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William L Boddie/  
Primary Examiner, Art Unit 2629

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